

WHAT IS CLAIMED IS:

1. An image forming apparatus comprising:

a photosensitive body; and

a charger including a discharge electrode and a back
5 plate for charging a surface of the photosensitive body,
the back plate having an aperture on a bottom face
thereof and a vent aperture on a side face thereof,

wherein an airflow is provided along the back plate
so that air is discharged,

10 wherein an aperture rate of a first part of the
bottom face corresponding to the vent aperture on the
side face in an axial direction of the charger is lower
than an aperture rate of a second part of the bottom face.

15 2. An image forming apparatus comprising:

a photosensitive body; and

a charger including a discharge electrode, a back
plate and a grid for charging a surface of the
photosensitive body, the back plate having a vent
20 aperture on a side face thereof,

wherein an airflow is provided along the back plate
so that air is discharged,

wherein a grid aperture rate of a first part of the
grid corresponding to the vent aperture in an axial
25 direction of the charger is higher than a grid aperture

rate of a second part of the grid.

3. An image forming apparatus comprising:

a photosensitive body; and

5 a charger including a discharge electrode and a back plate for charging a surface of the photosensitive body, the back plate having an aperture on a side face thereof extending in an axial direction of the charger with a uniform width and a length larger than a predetermined
10 length needed for image-formation on the photosensitive body,

wherein an airflow is provided along the back plate so that air is discharged, and

wherein an insulating sheet is applied to an outer
15 face of the back plate so as to cover a portion of the aperture while leaving another portion of the aperture uncovered, constituting a vent aperture.

4. An image forming apparatus comprising:

20 a photosensitive body; and

a charger including a discharge electrode and a back plate for charging a surface of the photosensitive body, the back plate having the back plate has a vent aperture on a side face thereof,

25 wherein an airflow is provided along the back plate

so that air is discharged, and

wherein an insulating sheet extending in the axial direction of the charger with a width substantially equal to a width of the vent aperture is applied to an inner
5 surface of the side face on which the vent aperture is not formed.

5. An image forming apparatus according to Claim 4,
wherein a maximum image-formation width t defined on the
10 photosensitive body is expressed as

$$t \leq T_h + T_s$$

where T_h is an axial length of the vent aperture and T_s is an axial length of the insulating sheet.

15